II.   AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Original) A method of determining fabricator capacity for a wafer start loading over a set time period, the wafer start loading having a number of wafer starts, the method comprising the steps of:

a) determining a common tool set capacity by dividing wafer starts that use common non-key shared tool sets by an overall capacity parameter, wherein the overall capacity parameter is based on a strategic characteristic wafer start loading;

b) determining a technology capacity by dividing the wafer starts of each technology within the wafer start loading by a corresponding unique tool set capacity for the respective technology; and

c) determining key shared tool set capacity by:

i) determining a capacity consumption factor for each key shared tool set used by at least one process;

ii) determining a capacity consumption of each key shared tool set used by a process of the wafer start loading;

iii) decreasing a remaining capacity value for each key shared tool set used by the process of the wafer start loading by a corresponding capacity consumption;

iv) repeating steps ii) and iii) for each process of the wafer start loading; and

v) determining the amount of wafer start capacity available for each process by dividing each remaining capacity value by a corresponding capacity consumption factor for a corresponding process.

09/683,837   -2-

2. (Original) The method of claim 1, wherein the at least one process includes every process of the fabricator.

3. (Currently Amended) The method of claim 1, wherein the at least one process is a single process of the wafer start loading, ~~and the step of repeating further includes repeating step i) for each process of the wafer start loading~~.

4. (Original) The method of claim 1, wherein the capacity consumption factor is determined according to the formula:

capacity consumption factor = number of passes x safety factor x (key shared tool set throughput / process throughput),

wherein the number of passes is the number of times a wafer start will be processed through the key shared tool set for a given process, tool set throughput is the average rate at which a tool of the key shared tool set operates times the number of tools within the set, and process throughput is the rate at which wafer starts for a given process are processed through the key shared tool set.

5. (Original) The method of claim 1, further comprising the step of organizing processes required by a wafer start loading into technology-based processes and design- based processes.

6. (Original) The method of claim 5, wherein each technology-based process is associated with at least three design-based processes.

09/683,837   - 3 -

7. (Original) A method of determining fabricator capacity for a wafer start loading, the method comprising the steps of:

organizing each technology the fabricator can produce into a component technology-based process and related design-based processes;

determining a capacity consumption factor for each tool set by process;

determining a capacity consumption for each tool set by process for the wafer start loading;

decreasing a remaining capacity value of each tool set by at least one corresponding capacity consumption; and

determining tool set capacity remaining by each process for the wafer start loading by dividing the remaining capacity value for each tool set by a corresponding capacity consumption factor.

8. (Original) A system for determining fabricator capacity for a wafer start loading, the system compromising:

a common tool set capacity analyzer for determining the capacity of the fabricator based on at least one common shared tool set;

a technology capacity analyzer for determining the capacity of the fabricator based on at least one technology unique tool set; and

a key shared tool set capacity analyzer for determining the capacity of a key shared tool set.

09/683,837   - 4 -

9. (Original) The system of claim 8, wherein the key shared tool set capacity analyzer determines the capacity of a key shared tool set based on the division of a remaining capacity value for the key shared tool set after decreasing for capacity consumption by processes of the wafer start loading by a capacity consumption factor.

10. (Original) The system of claim 9, wherein the capacity consumption factor is determined according to the formula:

capacity consumption factor = number of passes x safety factor x (key shared tool set throughput / process throughput),

wherein the number of passes is the number of times a wafer start will be processed through the key shared tool set for a given process, tool set throughput is the average rate at which a tool of the key shared tool set operates times the number of tools

within the set, and process throughput is the rate at which wafer starts for a given process are processed through the key shared tool set.

11. (Original) The system of claim 8, wherein the key shared tool set capacity analyzer analyzes processes of the wafer start loading by technology-based processes and design-based processes.

12. (Original) The method of claim 11, wherein each technology-based process is associated with at least three design-based processes.

09/683,837   - 5 -

13. (Original) A computer program product comprising a computer useable medium having computer readable program code embodied therein for reporting on performance of a plurality of parameters, the program product comprising:

a) program code configured to determine a common tool set capacity by dividing wafer starts that use common non-key shared tool sets by an overall capacity parameter, wherein the overall capacity parameter is based on a strategic characteristic wafer start loading;

b) program code configured to determine a technology capacity by dividing the wafer starts of each technology within the wafer start loading by a corresponding unique tool set capacity for the respective technology; and

c) program code configured to determine key shared tool set capacity including:

i) program code configured to determine a capacity consumption factor for each key shared tool set used by a process that is required by the wafer start loading;

ii) program code configured to determine a capacity consumption of each key shared tool set used by the process;

iii) program code configured to decrease a remaining capacity value for each key shared tool set used by the process by a corresponding capacity consumption;

iv) program code configured to execute program code i), ii) and iii) for each process required by the wafer start loading; and

v) program code configured to determine the amount of wafer start capacity available for each process by dividing each remaining capacity value by a corresponding capacity consumption factor for a corresponding process.

09/683,837   - 6 -

14. (Original) The program product of claim 13, wherein the capacity consumption factor is determined according to the formula:

capacity consumption factor = number of passes x safety factor x (key shared tool set throughput / process throughout),

wherein the number of passes in the numer of times a wafer start will be processed through the key shared tool set for a given process, tool set throughput is the average rate at which a tool of the key shared tool set operates times the number of tools within the set, anc process throughput is the rate at which wafer starts for a given process are processed through the key shared tool set.

15. (Original) The program product of claim 13, wherein the process of the wafer start loading are analyzed by technology-based processes and design-based processes.

16. (Original) The program product of claim 15, wherein each technology-based process is associated with at least three design-based processes.

17. (Original) A system for determining fabricator capacity for a wafer start loading, the system comprising:

means for determining a common tool set capacity of the fabricator based on at least one common shared tool set;

means for determining a technology capacity of the fabricator based on at least one technology unique tool set; and

09/683,837   - 7 -

means for determining the capacity of at least one key shared tool set based on processes

required by the wafer start loading.

09/683,837   - 8 -